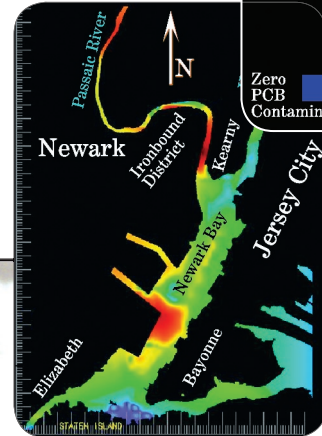
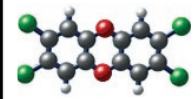


# Environmental Contaminants Program

*Every corner and back bay of New Jersey*



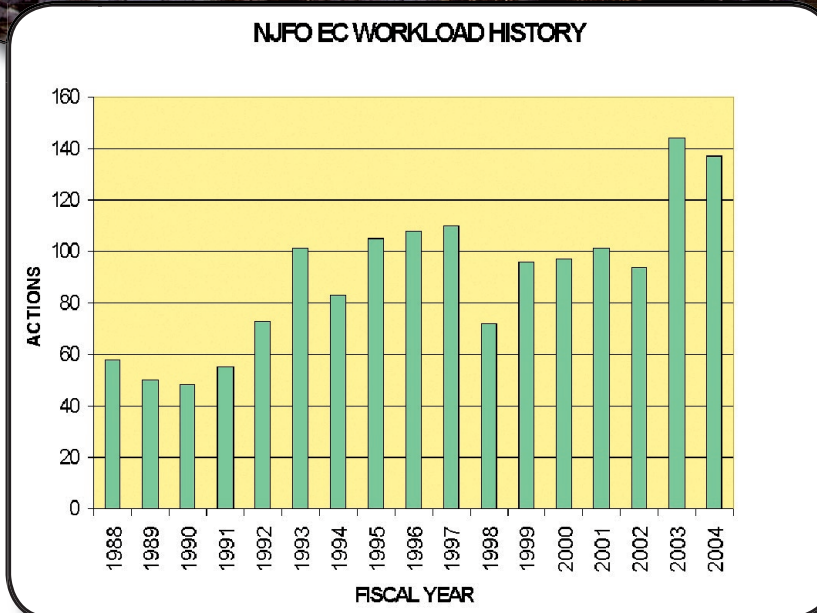
More than any other program area at the NJFO, the Environmental Contaminants (EC) program reaches every corner and back bay of New Jersey, every trust species — endangered or not, publicly or privately held lands whether pristine or highly contaminated, industrial or undeveloped. The dynamics and mobility of contaminants in the environment are extremely complex, and their effects are often as insidious as they are tragic. For example, the bald eagle is now being exposed to new, emerging contaminants such as brominated fire retardants, pharmaceuticals, and perfluorinated chemicals and decreasing but biologically significant levels of PCBs, dioxins, and methylmercury in its body and eggs. The NJFO EC program confronts a myriad of complex contaminant issues.

The EC program continues to work collaboratively with the EPA and New Jersey Department of Environmental Protection to implement wildlife-protective surface water criteria for mercury,

PCBs, and DDT as part of the New Jersey Surface Water Quality Standards. The criteria provide a means significantly to reduce the load of bioaccumulative contaminants in waters throughout the State including 8,020 miles of rivers and streams, 113 square miles (72,590 acres) of lakes and ponds, 1,482 square miles of fresh and saline wetlands, and 725 square miles of estuarine waters. The EC program supports the Delaware River Basin Commission by participation in their interagency committee framework for toxics and for implementation of a PCB Total Maximum Daily Load for basin

waters below Trenton. PCB loads and concentrations throughout the Delaware River watershed are associated with adverse impacts to federal trust resources. The possible need for natural resource damage assessment activity, if Total Maximum Daily Load implementation falters, has been identified.

Pursuant to the Fish and Wildlife Coordination Act, the EC program has provided planning aid assistance to the U.S. Army Corps of Engineers on high visibility contaminants issues associated with federal projects in the Hudson



Raritan Estuary such as the restoration of the Hackensack Meadowlands, Liberty State Park, and the Passaic River. Similarly, the NJFO provides technical assistance to the Corps of Engineers for their ongoing work to deepen the New York and New Jersey Harbor. These high priority NJFO work activities support and complement natural resource damage assessment actions within the Harbor complex.

In addition to responding to oil spills and chemical discharges, NJFO Contaminants Biologists have developed an interactive GIS-mapping tool prototype

for identifying resources at risk during oil spills and hazardous substance discharges, useful both in planning and response. This tool is operational and is being incorporated into the Philadelphia Area All-Hazards Contingency Plan that we believe can be considered as the national model for other areas.

The NJFO's Contaminants Biologists are also active members of the EPA-led Biological Technical Assistance Group (BTAG) which provides cleanup service on over 110 National Priorities List (Superfund) sites in New Jersey including two sites within the boundaries

of a National Wildlife Refuge (NWR). The interdisciplinary BTAG reviews Superfund site remedial action documents for accuracy, completeness, and scientific defensibility and makes recommendations to improve the probability of a successful and cost-effective remediation that minimizes residual natural resource injuries and identifies further natural resource damage assessment initiatives.

The NJFO EC program has also undertaken restoration activities to address natural resource injuries at the Operable Unit 3 of the Asbestos Dump Superfund Site located in the National Wilderness Area of the Great Swamp NWR in Morris County. Thus far, the original \$3.4 million damage settlement has funded the ongoing restoration of more than 100 acres of forested wetlands, the acquisition and protection in perpetuity of 130 acres of forested or emergent wetlands (appraised at \$7.3 million and purchased by leveraging \$4.3 million), the replacement of lost public use with the construction of a half-mile boardwalk at the refuge's wildlife observation center, and the \$500,000 reimbursement of the Department of the Interior's Central HazMat Fund for its actions in hazardous waste cleanup in the Great Swamp NWR.